

ABSTRACT

A package for an optoelectronic device includes a hermetically sealed cavity into which a mirror or other optical element is integrated. For a side-emitting laser, an integrated mirror turns the light emitted from the laser inside the cavity so that the light exits through a top surface of the package. The packaging can be implemented for individual lasers or at the wafer level. A wafer level process fabricates sub-mounts in a first wafer, fabricates depressions with reflective areas in a second wafer, electrically connects optoelectronic devices to respective sub-mounts on the first wafer, and bonds a second wafer to the first wafer with the lasers hermetically sealed in cavities corresponding to the depressions in the second wafer. The reflective areas in the depressions act as turning mirrors for side emitting lasers.